EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, DECEMBER 2008

EC 04 805 (D)—TELEVISION ENGINEERING AND RADAR SYSTEM

(2004 admissions)

Time : Three Hours   Maximum : 100 Marks

*Answer **all** questions.*

1. (a) Describe sequential horizontal scanning.

   (b) Describe a blanking pulse.

   (c) What is the colour burst ? How is it transmitted ? What is its purpose ?

   (d) Write a brief note on vestigial sideband transmission.

   (e) Explain the general concept of video bit reduction.

   (f) Explain any *one* scrambling method.

   (g) Explain the working of a continuous wave RADAR.

   (h) With block diagram, explain the tracking radar system.

                                                                     (8 × 5 = 40 marks)

2. (a) Describe the

       (i) Horizontal blanking time.

       (ii) Vertical blanking time.

Or

   (b) Draw the block diagram of a monochrome television receiver and describe its basic operation and the primary purpose of each section.

3. (a) Describe the basic operation of a colour television camera.

Or

   (b) Compare and contrast the features of NTSC, PAL and SECAM system standards.

4. (a) Explain in detail about the MPEG standards and its applications.

Or

   (b) Write short notes on :

       (i) Cable TV.

       (ii) Digital TV.

5. (a) Derive the Radar Range equation.

Or

   (b) With the block diagrams, explain the transmitter and receiver section of a Radar system.

                                                                     (4 × 15 = 60 marks)